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WEEKLY REPORT ON FEDERAL TECHNOLOGY NEWS AND POLICIES

Innovation agenda issued by House Democrats gets a favorable reception

"Our innovation agenda is part of our vision for a stronger America," House Democratic Leader Nancy Pelosi said last week. "It's an agenda that reflects our most basic conviction that working together, for the common good, there's no challenge too great for the American people."

In her National Press Club remarks on Nov.15, Rep. Pelosi, D-Calif., provided more details on the five main thrusts [see below] of the *Innovation Agenda: A Commitment to Competitiveness to Keep America #1,* a new12-page document released at the event.

"We've sought out the best possible thinking on how to secure America's place as the world leader in innovation," said Pelosi. With other House Democrats, she had met over the past several months with leaders and CEOs from academe, business, and venture capital, and entrepreneurs from the high-tech, biotech and telecom sectors. Forums were held in Silicon Valley, Seattle, Chicago, Boston, Northern New Jersey, and North Carolina's Research Triangle, and others are planned.

"They took pride in [describing] the amazing history, power, and creativity of America's economic model, and the inventiveness of the private sector," Pelosi said of these meetings.

The agenda has five main thrusts:

- Create an educated, skilled workforce in the vital areas of science, math, engineering, and information technology
- Invest in a sustained federal r&d initiative that promotes public-private partnerships
- Guarantee affordable access to broadband technology to all Americans
- Achieve energy independence in 10 years by developing emerging technologies for clean and sustainable alternatives that will strengthen national security and protect the environment
- Provide small businesses with tools to encourage entrepreneurial innovation and job creation. [*More, page 10*]

Inside:

SBIR program gets review

The highly successful federal Small Business Innovation Research (SBIR) program continues to attract the attention of lawmakers and policy makers.

"Programs like SBIR provide a bridge between product conception and marketability, a step of vital importance for innovative ideas to become reality," said Rep. Marilyn Musgrave, R-Colo.

She chaired a Nov.8 hearing of the House Small Business Subcommittee on Workforce, Empowerment and Government Programs that heard from six representatives of federal departments or agencies involved with the SBIR program.

"More than 82,000 awards have been made over the life of the program, totaling $16.9-billion," said Small Business Administration (SBA) acting associate deputy administrator Calvin Jenkins. He oversees SBA's Office of Technology which administers the program.

Eleven federal agencies presently operate SBIR programs and funding is estimated to be about $2-billion/yr. Over 30,000 proposals are submitted each year, and agencies make some 6,000 awards to about 3,000 US small high-tech companies.

"We estimate the average commercialization rate across all agencies is close to 40%," said Jenkins.

He confirmed that SBA is coordinating with the Office of Management and Budget (OMB) on a review of the "effectiveness, management, and performance measurement" of SBIR and Small Business Technology Transfer (STTR) programs run by DOD, NASA, DOE, NIH, and NSF.

"We expect to use the findings of that assessment to address any shortcomings in these programs," he told the subcommittee.

Other officials who testified were: Frank Ramos (DOD); James Decker (DOE); Dr Norka Ruiz Bravo (NIH); Colien Hefferan (CSREES/USDA); and Joe Hennessey (NSF).

Subcommittee members asked the witnesses about an SBA ruling that disqualifies small companies from SBIR awards if they are majority owned or controlled by venture capital (VC) funds or large companies.

Only the NIH representative expressed concern publicly about the possible impact of this rule on the rate of SBIR submissions and the consequences for biotech innovations.

At a Biotechnology Industry Organization (BIO) press conference on Nov.9, Reps. Sam Graves, R-Mo. and Brian Baird, D-Wash. expressed support for changes to SBA's rule. Both also support a bill, the *Save America's Biotechnology Innovative Research* (SABIR) bill (H.R. 2943 & S.1263), which seeks to restore the SBIR eligibility of majority VC backed biotech and medical device small companies. The bill is also backed by Senator Kit Bond, R-Mo.

Two individuals outside the Nov.9 Capitol Hill press conference claimed to be BIO members and said they were denied entry to the event because they opposed the proposal.

"Not all BIO members agree with changing SBIR eligibility rules to allow for VC majority ownership," one told ***FTW***.

DOE issues rule on OTA

The Department of Energy (DOE) has issued an interim final rule for establishing policies and procedures for a new "other transaction" authority (OTA) that provides opportunities for more government-industry research partnerships.

"This authority will increase and diversify the types of companies collaborating with DOE on scientific research," Energy Secretary Sam Bodman said Nov.15. "Our hope is that this opportunity to work with a wider range of industry players will allow the government to bring new technologies to the marketplace cheaper and faster."

New authority implemented in this interim final rule allows DOE greater flexibility to negotiate specific provisions with industry partners, such as intellectual property, audits, and cost principles.

DOE officials believe use of the OTA could expand participation in the department's research, development and demonstration (RD&D) programs by companies that deal primarily in the commercial marketplace. Increased private sector participation could also help the federal government cultivate new relationships among technology stakeholders and offer opportunities for more consortium awards.

This new regulation will be employed by DOE in a similar way to the Department of

Defense (DOD) by awarding and administering Technology Investment Agreements (TIAs) for support of research projects. A special type of financial assistance, TIAs are used to increase the involvement of commercial firms in RD&D programs.

OTA was granted to the Energy Secretary by Section 1007 of the Energy Policy Act of 2005 and is subject to the same terms and conditions as the DOD's OTA regulation.

There's a 30-day public comment period for the interim final rule from Nov.15. The rule is effective 120-days after issuance.

House NASA conferees

The House named conferees to the House-Senate Conference Committee on Friday (Nov.18) to negotiate a final authorization bill for NASA.

Republican conferees on the bill as a whole are: Science Committee Chairman Sherwood Boehlert, R-N.Y., Space and Aeronautics Subcommittee Chairman Ken Calvert, R-Calif., Rep. Ralph Hall, R-Texas, Rep. Lamar Smith, R-Texas, and Rep. Tom DeLay, R-Texas. Government Reform Committee Chairman Tom Davis, R-Va. and member Rep. Michael Turner, R-Ohio were named conferees on specific sections of the bill.

Democratic conferees on the bill as a whole are: Science Committee ranking member Bart Gordon, D-Tenn., Space Subcommittee ranking member Mark Udall, D-Colo., and Energy Subcommittee ranking member Michael Honda, D-Calif. Science Committee member Rep. Sheila Jackson-Lee, D-Texas will be a conferee in lieu of Rep. Honda on sections of the bill dealing with "whistleblower" protection and equal access to NASA's education programs. In addition, Government Reform Committee ranking member Henry Waxman, D-Calif. has been named a conferee on specific sections.

The NASA authorization bill (H.R.3070) was introduced by Calvert and Boehlert, and agreed to unanimously on July 14 by the Science Committee by a vote of 36 to 0. It passed the House on July 22 by a vote of 383 to15. A companion bill (S.1281) was passed by the Senate on Sept.28.

The House took up S.1281 on Nov.18 and replaced language in the bill with the text of H.R. 3070, as it passed the House, and requested a conference with the Senate.

Science Committee staff anticipate that a final bill will be brought before the full House when Congress reconvenes in December.

National S&T medalists

The nation's highest honors for science and technology were announced by President Bush on Nov.14, when he named recipients of the 2004 National Medal of Science and National Medal of Technology.

The National Medal of Science honors individuals for pioneering scientific research that enhances understanding of the world and leads to innovations and technologies that give the US its global economic edge. The award, which was established by the Congress in 1959, is administered by the National Science Foundation.

Recipients of the 2004 National Medal of Science are:

- ***Kenneth J. Arrow***, Stanford Univ., Calif.
- ***Norman E. Borlaug***, Texas A&M Univ.
- ***Robert N. Clayton***, Univ. of Chicago, Ill.
- ***Edwin N. Lightfoot***, Univ. of Wisconsin-Madison, Wis.
- ***Stephen J. Lippard***, M.I.T., Mass.
- ***Phillip A. Sharp***, M.I.T., Mass.
- ***Thomas E. Starz***, Univ. of Pittsburgh School of Medicine, Pa.
- ***Dennis P. Sullivan***, SUNY Stony Brook, N.Y.

The National Medal of Technology honors individuals who embody the spirit of American innovation and have advanced the nation's global competitiveness. Established by Congress in 1980, this award is administered by the Commerce Department.

Recipients of the 2004 National Medal of Technology are:

- ***Ralph H. Baer***, Engineering Consultant, Manchester, N.H.

- ***Roger L. Easton***, RoBarCo, Canaan, N.H.
- ***Gen-Probe Inc.,*** San Diego, Calif.
- ***IBM,*** Microelectronics Div., Somers, N.Y.
- ***Industrial Light and Magic***, San Rafael, Calif.
- ***Motorola Inc.***, Schaumburg, Ill.
- ***PACCAR Inc.***, Bellevue, Wash.

Agreement on chips

"Consistent with section 2103(a)(1) of the Trade Act of 2002, I am pleased to notify the Congress of my intention to enter into an agreement with the European Union, Japan, the Republic of Korea, and Taiwan on tariff treatment for multi-chip integrated circuits," President Bush said in a message to Congress signed Nov.14.

Multi-chip integrated circuits are semiconductor devices used in computers, cell phones, and other high-technology products.

US-based companies are the principal suppliers to the world of multi-chip integrated circuits. In 2004 global sales of finished multi-chip integrated circuits were estimated to be worth $4.2-billion. US semiconductor makerss accounted for about half of those sales.

"The US, the EU, the Republic of Korea, and Taiwan will apply zero duties on these products as of an agreed date," the president's message continued. "Target date for entry into force of the agreement is Jan.1 2006. Japan already applies zero duties on these products and expects to ratify the agreement formally in 2006. Further, although all major producers of multi-chip integrated circuits will be parties to the agreement, we will seek to build on this agreement by joining together to work in the World Trade Organization to increase the number of countries granting duty-free treatment to these products."

Maize genome cooperation

A team of university and private laboratory researchers has been awarded $32-million by the National Science Foundation (NSF), Department of Agriculture (USDA), and Department of Energy (DOE) to sequence the maize genome.

"Knowledge gained from this project will ultimately lead to better corn yields," NSF Director Arden Bement Jr. said Nov.15.

The maize genome contains an estimated 50,000-60,000 genes scattered among the 2.5-billion bases of DNA that make up its 10 chromosomes. By comparison, the human genome contains about 2.9-billion bases and about 26,000 genes.

"In many ways, this sequencing effort is comparable to that of the human genome as the two are nearly the same size," said project lead investigator Richard Wilson at Washington Univ. "However, the dispersed arrangement of genes coupled with the many segments of repeated DNA sequence represent unique challenges for this effort."

"Having a genome sequence for maize will advance our understanding of the biology of important but poorly understood processes such as hybrid vigor and asexual plant production," said NSF biosciences chief James Collins. "This investment is yet another step along the road in using genomics to transform the plant sciences."

The interdisciplinary team will utilize the successes of many other completed sequencing efforts, including some previously sequenced sections of the maize genome as well as the rice and human genomes, to ensure speed and accuracy of the project.

All sequence data produced by the team will be deposited immediately into GenBank, a public repository for genome sequence data.

"Knowing the genetic sequence of maize will help researchers to increase yields, reduce inputs, and develop more disease-resistant varieties," said USDA Under Secretary for Research, Education and Economics Joseph Jen. "More broadly, it will also hold clues to improve the growth and development of other related grass crops, such as wheat and barley."

Maize ranks among the major grain crops of the world and dominates US agriculture.

In 2004, 81-million acres of corn were planted with a production value of $23-billion.

"This project will provide an essential overview of the structure and function of genes that define the corn plant," added DOE Joint Genome Institute lead investigator for the project Daniel Rokhsar. "This important information will provide vital clues on how the actual genetic sequence can be useful to accelerate corn's improvement as well as many of its plant relatives."

In addition to being a food crop, corn is converted into a myriad of processed food products and also is an important material for many industrial purposes and products including rubber, plastics, fuel and clothing.

Maize is a classic system for studying complex genomic structure, organization and function, noted DOE Office of Science director Raymond Orbach. Its high quality genetic map could serve as the basis for studies on improved biomass and bioenergy resources from related plant species.

Researchers on the maize genome sequencing project are from Washington Univ., Cold Spring Harbor Lab, Iowa State Univ., Univ. of Arizona, UC Berkeley, DOE's Joint Genome Institute, Univ. of Georgia and Stanford Univ.

DARPA award to MIT

Award of a 3½-year, $9.5-million project was made recently to the Massachusetts Institute of Technology's Research Laboratory of Electronics (RLE) Erich Ippen by the Defense Advanced Research Projects Agency (DARPA).

Entitled *Optical Arbitrary Waveform Generation for Ultrahigh Resolution Sensing and Imaging*, the project attempts unprecedented levels of performance for ultra-broadband coherent optical systems to enable dramatic advances in applications such as high-resolution 3-D imaging, novel chemical sensing, and ultra-broadband optical communications.

"This is challenging but very exciting," said Prof. Ippen on Nov.9. "We've an opportunity to achieve an entirely new level of control over the optical spectrum."

Ippen leads a multi-institutional team featuring collaborators at UC Davis as well as industry partners: Inphi Inc., Multiplex Inc., and Inplane Photonics Inc.

"This new DARPA project is the largest DOD program ever awarded to RLE," said RLE director Jeffrey Shapiro, "and the second-largest ever from any sponsor." He noted that the project builds on the lab's strengths in photonics, especially its leading efforts in femtosecond-laser frequency-comb technology and nanoscale device fabrication.

The work is funded by DARPA's Defense Sciences and Microsystems Technology

Senate weather bill moves

The Senate Commerce, Science, and Transportation Committee approved the *Weather Modification Research and Technology Transfer Act of 2005* (S.517) by voice vote on Nov.17.

Sponsored by Sen. Kay Bailey Hutchison, R-Texas, the bill creates within Commerce Dept. the Weather Modification Advisory and Research Board (WMARB) to promote studies, r&d, and investigations of weather modification.

The board would have 11 members from government and the private sector, and work with Congress and the federal government on weather modification research.

WMARB would advise the National Oceanic and Atmospheric Administration (NOAA) on research needed for improved forecast and decision-making technologies for weather modification purposes. With this data and research, the board would make assessments and evaluations on the efficacy of weather modification.

The bill also authorizes the Commerce Secretary, through NOAA, to set up a competitive research program for universities on the potential benefits of weather modification.

The Senate panel also adopted a substitute by Sen. Hutchison, by voice vote, changing

the bill's short title to the *Weather Modification Research and Development Policy Authorization Act of 2005*, and describing its goal as being to develop a comprehensive national weather modification research policy.

A subcommittee in the Office of Science and Technology Policy (OSTP) to coordinate a national weather modification research program is also created by the substitute bill. This subcommittee (most likely as part of the National Science and Technology Council (NSTC)) would be co-chaired by NOAA and NSF officials, and have members from NASA and other federal departments and agencies.

The bill now moves to the full Senate for consideration.

Smart Growth awards

The Environmental Protection Agency (EPA) presented its 2005 National Smart Growth Achievement awards last week to five communities in Calif., Fla., Conn., and Colo. for innovative approaches to development that strengthen community identity and protect the environment.

Communities across the nation are seeking to grow in ways that protect and enhance their natural environments and create prosperity. Many are opting for smart growth strategies.

"Smart growth is smart for our environment, smart for our economy and smart for our quality-of-life," EPA Deputy Administrator Marcus Peacock said Nov.16. "All in all, smart growth just makes sense."

Award categories and winners are below:

Overall Excellence: Denver Urban Renewal Authority for redevelopment of an abandoned 27-acre amusement park into an innovative, compact, mixed-use community that has become a model for development throughout the Denver metropolitan area;

Built Projects: City of Lakewood, Colo. and Lakewood Reinvestment Authority for the redevelopment of a declining shopping mall into a walkable downtown area called Belmar;

Policies and Regulations: City of Pasadena, Calif. planning & development dept. for its central district specific plan and design guidelines. Over 85% of all permits for new housing issued by the city after the plan's adoption have been in the central district, most within ½-mile of one of the district's four light rail stations;

Small Communities: Town of Redding, Conn. won the award for cleanup and redevelopment of an abandoned wire mill into a mixed-use, transit-oriented neighborhood. An extensive public and stakeholder participation process helped define plans for cleanup of the contaminated facility and its redevelopment. Many original mill buildings are being preserved and rehabilitated, and buildings that covered the mill stream removed;

Military Base Redevelopment: City of Orlando, Fla. for redevelopment of former Naval Training Center into a vibrant new neighborhood providing 4,100 homes, 6,000 jobs and 450 acres of lakes and parks. Most waste generated during demolition of existing structures was recycled on site and about 200,000 tons of crushed concrete were used in an underground storm water management system.

Now in its 4th year, the competition's 2005 call for entries drew 63 applications from 26 states and DC.

Winners were selected based on how effectively they used smart growth strategies to improve their communities, and how well they engaged citizens and fostered partnerships.

The Smart Growth program is run by EPA's Office of Policy, Economics and Innovation.

For more details, visit:
<www.epa.gov/smartgrowth/awards.htm>

Federal s&e support

The Office of Science and Technology Policy (OSTP) gave notice last week of plans for proposed principles for federal support of graduate and postdoctoral education and training in science and engineering.

The proposed principles, which are intended to increase collaboration and consistency by federal agencies that support graduate and postdoctoral s&e education and training, are as follows:

- *Federal support of such education and*

training is a critical investment in the future;

- *Federal investment portfolio must broadly support s&e disciplines;*
- *Graduate students and postdoctoral scholars must receive quality education and training;*
- *Federal contributions toward graduate and postdoctoral education and training are provided in partnership with academic and other non-federal institutions;*
- *Graduate students and postdoctoral scholars should be adequately supported to encourage their pursuit of s&e careers; and*
- *Federal agencies should collaborate in areas of common interest.*

In 2001, the federal government supported about 60,000 graduate students and 30,000 postdoctoral scholars in science and engineering. About 44,000 (73%) of graduate students and 24,000 (80%) of postdoctoral scholars received their support as research assistants or associates on federal grants and contracts. Most of the remaining graduate students (27%) and postdoctoral scholars (20%) received support through federal agency fellowships or traineeships.

Comments on the proposed principles must be received by Jan.16 2006.

For information, contact Mark Weiss at (202) 456-6129; Mweiss@ostp.eop.gov

ARS probes new flax use

In hot summer weather, classic blue jeans made from denim, the sturdy cotton fabric, can become heavy under the weight of absorbed moisture. But Agricultural Research Service (ARS) scientists and engineers have created a cotton-flax denim blend to make jeans more comfortable to wear even in summer heat.

While denim is one of the largest commodity fabrics produced in the world, flax is nearly three times stronger than cotton and is one of the strongest natural fibers known. Clothing materials, such as woven denims and knitted fabrics made from these cotton-flax blends, could be compared to a new, non-wrinkle form of linen.

ARS mechanical engineer Jonn Foulk at the Cotton Quality Research Station in Clemson, S.C., has been working with technicians to blend cotton with flax to create new yarns, using the station's state-of-the-art spinning facility. The specific ratio used in these new blends imparts "moisture management" to woven denim and knitted fabrics.

Adding flax to clothing fabric helps keep skin cool in part because the flax enhances 'wicking,' the fabric's ability to pull moisture away from the skin. Another valuable feature is the ability of the fabric to dry quickly. Use of cotton-flax blends in athletic performance and other apparel is also being evaluated.

Researchers are also embedding flax fibers into polymers to create composite materials and non-woven sheets for industrial uses.

Flax has been found to be a good candidate for growing in rotation with cotton in the Southeast region of the nation. In addition, byproducts from processing natural flax fibers are fully recyclable, while those generated from processing synthetic fibers generally are not.

More industry partners, including mill and apparel manufacturers, are now being sought by the Clemson station to help take the technologies to the next level of development.

Natick suit helps SpecOps

Thin, selectively-permeable membranes that look like plastic wrap are the latest technology developed by the US Army Soldier Systems Center at Natick, Mass. to protect Special Operations Forces from chemical and biological warfare agents.

While the material can block harmful toxins, it allows sweat to escape without many of the disadvantages of carbon used traditionally for chemical-biological protective garments.

The new *All Purpose-Personal Protective Ensemble* with selectively permeable membranes was approved for production in April, and deliveries are scheduled to start in December. The ensemble is rated much better than the alternatives, according to

project officer Karen Burke of Natick's Special Operations Forces Special Projects Team.

"It's exciting to see it getting used by the folks who need it," she said last week. "What's neat is that this is only the beginning. The 'one-suit-fits-all' philosophy doesn't work anymore. You can tailor it to fit specific requirements of different missions."

The ensemble consists of an attached or separate hood, one-piece overgarment with reinforced knees, elbows and seat, and socks. Gloves are a carryover from existing Joint Service Lightweight Integrated Suit Technology that's the current protective suit for the military.

Now available in eight sizes - from small to double-extra large - the ensemble has leg gussets, Velcro and zippers to further adjust the fit. One drawback with chemical-biological protective material is that it does not stretch.

The new material passed live-agent testing, and prototype suits were tested with simulated agents before getting approval. While these tests showed increased protection, a quality parameter that remains unknown is wear time.

"If we can figure out what features lengthen or shorten its life, then we can reduce its cost," said Burke, who revealed that the Department of Homeland Security is interested in adopting a version of the suit.

Military services now equipped with earlier protective suits may trade those in for the selectively-permeable membrane ensemble as suit cost decreases and performance and long-term durability is confirmed.

"The design is driven by barrier technology," said Burke. "What really makes it work are the closures. To get the full benefit, you have to get high-integrity closures."

While existing suits protect by absorbing and neutralizing toxic agents with a material containing carbon spheres, the new ensemble is the first garment that seals out contaminants with a membrane protected on each side. It doesn't degrade with exposure to the atmosphere like carbon-based materials, and accelerated aging tests indicated it has a longer storage shelf-life.

In tests, selectively-permeable membranes proved to be liquid-proof and provided better protection after contact with a toxic agent. Since they don't absorb everyday contaminants, the new ensembles suffer less degradation.

More details can be found at: <www.natick.army.mil>

NIST technique is cool...

Experiments conducted by a National Institute of Standards and Technology (NIST) researcher have demonstrated that putting small amounts of additives in refrigerants could improve significantly the efficiency of commercial air conditioning.

NIST mechanical engineer Mark Kedzierski has devised a method to improve the energy efficiency of water chillers that cool many of the nation's large commercial buildings. If confirmed through experiments with full-scale chiller systems, the NIT method could potentially save as much as 1% of the 320-billion kWh of electricity used by chillers annually or the equivalent 920,000 barrels of oil a day, according Kedzierski.

His technique builds on past NIST research intended to optimize mixtures of chiller refrigerants and lubricants. Researchers discovered that some lubricants, when injected in small amounts, can enhance significantly evaporator heat transfer, so increasing the efficiency of chillers. When the process was examined more closely by the researchers, they found the most efficient heat transfer occurred when the added oil's surface tension, viscosity, composition and chemical characteristics complemented those of the chiller's base lubricant.

Kedzierski, who described the technique in a recent paper, developed rules for selecting the different types of oil additives according to the type of chiller lubricant. Lab work is now underway to test the energy enhancing potential of several oil and

lubricant combinations identified by these rules.

"The leap from a successful lab experiment to an everyday large-scale cooling application is a big one," Kedzierski said recently. "NIST wants to see this theory translated into products germane to manufacturers as soon as possible [and] we welcome private-sector interest in the theory and its application."

NIST theory and research can be found at: <www.bfrl.nist.gov/pdf/NISTIR7132.pdf>.

Invention license info

The Department of Commerce is seeking Office of Management and Budget (OMB) approval for the Technology Administration (TA) to collect information on government-owned invention license applications and utilization activities.

A license application is required from any person or organization wishing to license a government-owned invention. TA uses this information to help determine if a license should be granted, whether it should be exclusive, and financial terms (such as execution fee, minimum annual payments, and royalty rates).

An annual utilization report is required of each licensee to decide if the license should be modified or terminated and determine royalties owed to the government.

TA anticipates collecting this information annually from about 4,600 respondents. It estimates that each license application takes an average of two hours to complete, and each utilization report takes about one hour.

For details on TA's request (OMB Approval #0692-0006), contact Kristy LaLonde at (202) 395-3087; Kristy_L._LaLonda@omb.eop.gov.

EPA names STAR fellows

The Environmental Protection Agency (EPA) announced the award of 165 research fellowships for students pursuing degrees in environmental studies, with a total of nearly $10-million in awards on Nov.16.

EPA sponsors several fellowship programs designed to ensure a well-trained scientific workforce to tackle future environmental issues, and its *Science to Achieve Results* (STAR) graduate fellowship program supports masters and doctoral candidates in environmental fields at accredited US colleges or universities.

More than 1,700 applicants competed for the 128 STAR fellowships in 2005. Research fellows represent 110 universities in 43 states and the District of Columbia, with students pursuing degrees in biology, toxicology, ecology and environmental sciences.

The Greater Research Opportunities (GRO) fellowship program funds undergraduate and graduate students conducting environmental research at universities that receive $50-million or less in annual federal research funds.

Students at schools with substantial minority enrollment, including Historically Black Colleges and Universities, Hispanic Serving Institutions, and Native American Tribal Colleges, are encouraged to apply for GRO fellowships. More than 260 GRO applicants competed this year for 37 awards.

A recent National Academy of Sciences report rated the STAR program as "outstanding" and found that STAR research has improved the scientific foundation for decision making at EPA.

Details of both programs are at: <www.epa.gov/ncer/fellow>

2005 mentoring awards

Ten individuals and one institution will receive the 2005 Presidential Award for Excellence in Science, Mathematics and Engineering Mentoring (PAESMEM), the White House announced on Nov.15.

Administered by the National Science Foundation, this annual presidential award recognizes individuals and organizations that have demonstrated a commitment to mentoring students and increasing the participation of minorities, women, and disabled students in science, math and engineering, and includes a $10,000 grant

for continued mentoring work and a presidential commemorative certificate.

The PAESMEM program seeks to identify outstanding mentoring efforts and programs designed to enhance the participation of groups underrepresented in science, math and engineering. Awardees will serve as exemplars to their colleagues and will be leaders in the national effort to develop more fully develop the nation's human resources in science, math and engineering.

Individual recipients of the 2005 awards are:

- *Alonzo Ashley, Stanford Univ., Calif.*
- *Sarwan Dhir, Fort Valley State Univ.,Ga.*
- *Joseph Gardella Jr., SUNY Buffalo, N.Y.*
- *Rosemary Gillespie, UC Berkeley, Calif.*
- *Tanya Larson, Penn.State Univ. Pa.*
- *Jong Lee, SUNY College, Old Westbury, N.Y.*
- *David Pagni, Calif. State Univ., Calif.*
- *Ashok Puri, Univ. of New Orleans, La.*
- *Cheryl Schrader, Boise State Univ., Idaho*
- *Sheryl Tucker, Univ. of Missouri, Columbia, Mo.*

Institutional recipient:

- *UC Irvine, Calif.*

Upcoming meetings...

A two-day open meeting of the ***Department of Energy's Biological and Environmental Research Advisory Committee*** (BERAC) is scheduled for early next month.

Organized as a federal advisory committee, BERAC provides the DOE Office of Science director with advice on a continuing basis about many complex scientific and technical issues arising from development and implementation of the Biological and Environmental Research (BER) program.

The committee's Dec.6-7 meeting will be held at the American Geophysical Union offices in Washington DC. The tentative agenda for the event includes comments from Office of Science director Raymond Orbach, a report by the subcommittee on Life Sciences committee of visitors, and status reports on BER necessary for BERAC to review the program's progress toward meeting its long-term performance goals. Associate director of science for biological and environmental research Ari Patrinos is also expected to give a report.

For more details, contact David Thomassen at (301) 903-9817; david.thomassen@science.doe.gov

Further information can be found at: <www.science.doe.gov/ober/berac/announce.html>

The ***National Institute of Standards and Technology (NIST) Information Security and Privacy Advisory Board*** (ISPAB) is to hold an open meeting early next month.

The ISPAB was created by the Computer Security Act of 1987 (P.L.100-235) and amended by the Federal Information Security Management Act of 2002 (P.L.107-347) to advise the Commerce Secretary and the NIST director on security and privacy issues relating to federal computer systems.

The board's Dec.6-7 meeting will be held at the Doubletree Hotel in Rockville, Md.

The preliminary agenda includes an overview of the Privacy Act Framework Effort, status reports on ISPAB work plan items, and briefings on NIST Next Generation Internet Protocol (IPv6) and National Vulnerability Database Project, and the National Telecommunications and Information Administration's information security outreach. Discussion of NIST's cryptographic hash function workshop is also planned.

For more information on the meeting, contact Pauline Bowen at (301) 975-2938.

Further details on the board's activities are at: <http://csrc.nist.gov/ispab/>

Democrats agenda (*from page 1*)

Accompanied by about ten House colleagues who included Science Committee ranking member Bart Gordon of Tenn., Pelosi said Democrats recognized that the nation's greatest resources for innovation and economic growth are in US classrooms.

"To create a new generation of innovators, our agenda calls for a qualified teacher in

every math and science K-12 classroom," she said. "We issue a 'call to action' to engineers and scientists to join the ranks of America's teachers."

Pelosi said 100,000 new scientists, engineers, mathematicians should be added to the US workforce in the next four years by providing scholarships and other financial and career incentives to college students.

Recognizing the critical role of scientific research in the foundation of US innovation and future technological endeavors, House Democrats propose to double federal funding for basic r&d in the physical science and to promote public-private partnerships to help translate and transition new ideas into marketable products and technologies.

"We commit to doubling [National Science Foundation] investment," said Pelosi, who added that the Defense Advanced Research Projects Agency's basic, long-term research agenda would be restored. "In addition, we will create research 'centers of excellence' across the country and modernize and make permanent the r&d tax credit."

Nation-wide deployment of high-speed broadband and Internet networks could "fuel development of millions of new [US] jobs," said Pelosi, noting the US is presently ranked 16th in the world in broadband penetration. "Our agenda guarantees that every American will have affordable access to broadband within five years."

Pelosi believes innovation and technology can lead the US to energy independence. "It's vital to both our economic future and national security that we develop clean, sustainable energy alternatives, such as bio-based fuels," she said, "[and] new engine technologies for flex-fuel, hybrid, and bio-diesel cars and trucks."

The Democrats' innovation agenda includes a new DARPA-like initiative in the Department of Energy to "develop high-risk, high-reward, revolutionary energy technologies." The goal is for the US to achieve energy independence within ten years, said Pelosi.

Noting how small businesses are catalysts for technological change, the agenda sets out measures to ease regulatory and cost burdens for small firms. It proposes to double funding of the Manufacturing Extension Partnership (MEP) and Advanced Technology Program (ATP), and to modernize the Small Business Innovation Research (SBIR) program.

Anticipating criticism that the US can't afford to make the investments set out in the agenda, Pelosi was adamant. "Democrats believe we can't afford not to make them. We've no choice," she said.

Democrats intend to "submit them to the rigors of the pay-as-you-go budgeting," said Pelosi, "so they will not add to the deficit, but instead will grow our economy."

Initial response to the House Democrats' innovation agenda was mostly favorable.

"Technology and innovation are catalysts of long-term economic growth," said Business Software Alliance president & CEO Robert Holleyman of the Democrats' proposals. "We support any effort in Congress, by either political party, to ensure continued investment in innovation for the future," he added. "Working alongside members of Congress from both sides of the aisle, the software industry will continue to promote policies that foster innovation and enhance economic growth."

Representatives of a number of other high-tech industry and professional organizations also had favorable reactions.

But the agenda was ridiculed by Reps. Bob Goodlatte, R-Va. and Lamar Smith, R-Texas in a Nov.15 statement. "The high-tech sector isn't fooled by empty promises in the absence of action," said Goodlatte. "They know that Republicans are the ones with a high-tech plan and the record of commitment of encouraging innovation and eliminating overly burdensome taxation and regulation."

"The Democrats' rhetoric on economic competitiveness and high-tech innovation does not match their voting record," stated Smith. The congressmen are chair and vice

chair, respectively, of the House Republican High Tech Working Group.

An electronic version of the agenda is at:
<www.housedemocrats.gov>
or call (202) 225-0100.

People in the news

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The president nominated ***Claudia A. McMurray*** to be Assistant Secretary of State for Oceans and International Environmental and Scientific Affairs. McMurray serves as deputy Assistant Secretary for Environment at State Department. She was associate deputy Administrator at the Environmental Protection Agency. Before joining the Bush administration, she was a principal of McMurray & Associates, where she consulted with clients on environmental, natural resource and energy issues. Earlier in her career, McMurray was counsel to the Senate Committee on Environment and Public Works and served as legislative counsel to Senator John Warner, R-Va.. She received her bachelor's from Smith College and her JD from Georgetown Univ.

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Five nominations to the board of directors of the Tennessee Valley Authority (TVA) were sent to the Senate by the president on Nov.18. They are: ***Dennis Bottorff*** for a term expiring May 18 2011; ***Robert M. Duncan*** for a term expiring May 18 2011; ***William B. Sansom*** for a term expiring May 18 2009; ***Howard A. Thrailkill*** for a term expiring May 18 2007; and ***Susan R. Williams*** for the term prescribed by law. She replaces Glenn McCullough, whose term expired.

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Canada's industry minister David Emerson last week announced the reappointment of ***Hugh Krentz*** as chairman of the Standards Council of Canada (SCC) for a three-year term. The reappointment was reviewed by the Standing Committee on Industry, Natural Resources, Science and Technology. "Mr Krentz's contributions to the SCC have made him a valuable asset, and I'm pleased to see him continue in this role as chairman," Emerson said Nov.16. "His extensive experience and leadership skills, coupled with his involvement and thorough understanding of standardization-related matters, will enable him to continue to offer fresh insights to the SCC." Throughout his career, Krentz has served in various capacities at the Canadian Institute of Steel Construction. He has a bachelor's from Univ. of Manitoba and is a Fellow of the Canadian Society for Civil Engineering and the Canadian Academy of Engineering. Located in Ottawa, SCC is a Canadian crown corporation with a mandate to promote efficient and effective use of voluntary standardization. It has a 15-member governing council and about 90 staff.

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The editor will be away for Thanksgiving, so the next issue of FTW will appear Nov.29

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